

### REMARKS

Applicants, through their undersigned agents, hereby traverse and request reconsideration of the requirement for restriction set forth in the Official Action dated August 27, 2003 in the above-identified patent application. An initial, shortened statutory response period of one (1) month was set in the August 27, 2003 Official Action. This traversal and Request for Reconsideration of Requirement for Restriction is being filed within the initial response period.

It is noted that the Examiner regards the present Application as allegedly containing groups of inventions that are not so linked as to form a single general inventive concept under PCT Rule 13.1. Applicants respectfully submit that the above assertion by the Examiner is improper for failing to comply with the relevant provisions of the Manual of patent Examining Procedure (M.P.E.P.) pertaining to unity of invention determination.

As stated in 1893.03(d) of the M.P.E.P.:

The principles of unity of invention are used to determine the types of claimed subject matter and the combinations of claims to different categories of invention that are permitted to be included in a single international or national stage patent application. The basic principle is that an application should relate to only one invention or, if there is more than one invention, that applicant would have a right to include in a single application only those inventions which are so linked as to form a single general inventive concept.

A group of inventions is considered linked to form a single general inventive concept where there is a technical

relationship among the inventions that involves at least one common or corresponding special technical feature. The expression special technical features is defined as meaning those technical features that define the contribution which each claimed invention, considered as a whole, makes over the prior art.

In the instant case, as also recognized by the Examiner, the claims of Groups I-IV are linked by a technical feature, a fusion peptide that is toxic to pests. Moreover, contrary to the Examiner's assertion, this technical feature, as it is recited in claim 1, is special and novel when considered in relation to the prior art (U.S. Patent No. 5,668,255, Murphy) cited by the Examiner. Specifically, claim 1 of the present application is directed to a fusion polypeptide comprising (i) a toxin domain and (ii) a heterologous binding domain capable of binding non-specifically to a cell membrane without disrupting that membrane. And as specified at page 6, lines 11-21 of present specification, the term "toxin" signifies a material which is toxic to pests. Thus, such a fusion polypeptide may help to inhibit the acquisition of resistance in a pest population treated with the polypeptide. However, claim 1 of Murphy is directed to a hybrid molecule comprising (a) a first part which is a portion of the binding domain of a cell ligand effective to cause the hybrid molecule to bind to a cell of an animal and (b) a second part comprising a portion of the translocation domain of a protein, provided that the hybrid molecule dose not include an enzymatically active portion of the protein. In other words, the hybrid molecule of Murphy, unlike

the fusion polypeptide of the present application, does not include a toxin. The hybrid molecule of Murphy is merely a vehicle molecule which may introduce enzymatically active proteins (e.g., toxin proteins) that are attached to the hybrid molecule into target cells. The hybrid molecule recited in claim 1 of Murphy, by itself, does not possess any enzymatic activity, e.g., toxicity, to the target cells. Claims 3 and 17 of Murphy further specify that the second part of the hybrid molecule is a portion of the translocation domain of a naturally-occurring toxin or ricin toxin. Again, the hybrid molecules recited in claims 3 and 17 of Murphy do not include the toxin domain in called for claim 1 of the present application. Therefore, the fusion peptide recited in claim 1 of the present invention, which links Groups I-IV, is novel over the prior art. Accordingly, the claims of Groups I-IV are linked to form a single general inventive concept and should be examined together.

Further, as it is stated in the Example 17 of Annex B Part 2 of PCT Administrative Instructions:

... Example 17

Claim 1: Protein X.

Claim 2: DNA sequence encoding protein X.

Expression of the DNA sequence in a host results in the production of a protein which is determined by the DNA sequence. The

protein and the DNA sequence exhibit corresponding special technical features. Unity between claims 1 and 2 is acceptable.

Thus, a protein and the DNA sequence encoding it exhibit "corresponding special technical features" and, therefore, satisfy the PCT's unity of invention requirement.

Accordingly, in the instant case, at the very least, the claims of Group I (including claims 1-32 and 42-49) and Group II (including claims 33-35 and 37) should be examined together.

Applicants further traverse the Examiner's requirement for further electing a single nucleotide sequence or amino acid sequence within an elected Group. It is submitted that each of the claims comprising a specific sequence depends from claim 2, which is directed to the single genus of Bacillus thuringiensis toxins. As no objection has been raised to claim 2, each nucleotide sequence of the present application cannot reasonably be regarded as constituting an independent and patentably distinct invention. Therefore, this further requirement for selecting a single sequence should be withdrawn.

In light of the foregoing, Applicants respectfully traverse the restriction requirement of August 27, 2003 and request that it be withdrawn upon reconsideration.

In order to be fully responsive to the above-mentioned requirement, Applicants hereby elect the subject matter of Group I, i.e., claims 1-32 and 42-49 for examination in this

application. Applicants further elect Seq ID No 6 within Group I.

Applicant's election in response to the present restriction requirement is without prejudice to their right to file one or more continuing applications, as provided in 35 U.S.C. §121, on the subject matter of any claims finally held withdrawn from consideration in this application.

Early and favorable action on the merits of this application is respectfully requested.

Respectfully submitted,

DANN DORFMAN HERRELL and  
SKILLMAN, P.C.  
Attorneys for Applicant

By



Tong Li

Registration No. 47,748

Enclosures: Replacement sheet for Fig. 3a;  
Annotated sheet showing changes to Fig. 3a.